REMARKS

Claims 1-4 and 8-9 stand rejected. Applicants respectfully traverse the rejection of these claims. Reconsideration of this application is requested in light of the remarks made herein.

I. Regarding the Rejection Under 35 U.S.C. § 101

The test under § 101 requires that "the claimed invention as a whole must produce a 'useful, concrete and tangible' result to have a practical application." (*See* MPEP § 2106.) Neither MPEP § 2106 nor 35 U.S.C. § 101 state that a claimed method must require the use of hardware as the Office Action suggested. A survey of the cases cited in MPEP § 2106 reinforces this point. (*See, e.g. Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 1373, 47 U.S.P.Q.2d 1596, 1601 (Fed. Cir. 1998); *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 U.S.P.Q.2d 1447, 1452 (Fed. Cir. 1999).)

The claims of this application comply with the "useful, concrete and tangible result" test in that resources are allocated to applications based on specifically claimed criteria and this results in improved resource sharing. This is not an attempt to solely claim the "manipulation of an abstract idea" or a mathematical algorithm, both of which are prohibited by MPEP § 2106. To clarify this point, Applicants have amended the preamble of the claims to recite that the method is "computer implemented."

The claims of this application are included in a category of subject matter described in MPEP § 2106 as "Computer-Related Processes Limited to a Practical Application in the Technological Arts." The sub-section of the MPEP § 2106 pertaining to this category states that "[a] method of controlling parallel processors to accomplish multi-tasking of several computing tasks to maximize computing efficiency" is patentable subject matter." (*See e.g., In re Bernhart*, 417 F.2d 1395, 1400, 163 U.S.P.Q. 611,616 (C.C.P.A. 1969).) This example is closely

analogous to the claims in this application that are also broadly directed to maximizing computing efficiency. Therefore, Applicants assert that the claims are directed to statutory subject matter and requests that the rejection under 35 U.S.C. § 101 be withdrawn.

II. Regarding the Rejections of the Claims Over the Prior Art

The Examiner continues to reject claims 1, 4 and 8-9 under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al (U.S. Patent No. 5,504,894). Applicants respectfully disagree with the Examiner's rejection.

Claim 1 recites:

> i) dynamically assigning a priority ... such assigning being in accordance with a moving average resource allocation to each of said respective request classes and the priority assigned to a respective request queue being a function of the moving average resource allocation to the associated request class;
> ...
> iii) allocating said resource to one of said applications whose request has been queued longest;

These limitations are neither disclosed nor suggested by the cited prior art. The Examiner concedes that Ferguson et al. does not specifically teach these limitations; however, the Examiner asserts that it would have been obvious to one of ordinary skill in the art to have recognized that Ferguson et al's performance index of a class is an average of response time which determines the priority of a class and is directly affected by the resource usage of that class in its corresponding Back-End Processors (col. 6, lines 20-35 and col. 8, lines 20-21). The Examiner contends that priority of a class is dynamically adjusted due to the change in resource usage (i.e. moving average resource allocation). Applicants assert that the reasoning supporting the rejection of the recited portions of claim 1 is erroneous.

The Examiner's reliance on col. 6, lines 20-35 and col. 8, lines 20-21 for support of the above rejection lacks merit. Column 6, lines 20-35 pertains to a transaction routing algorithm

that executes in the front-end processor. In particular, this section relates to the computation illustrated in Figure 5 in which a performance index for a particular class is estimated should a transaction be routed to a particular resource. As stated previously in the response of February 24, 2006, the process in Ferguson is predictive as resources are allocated based on priorities assigned in accordance with estimated values for the class performance indices. This fact is supported in column 3, lines 18 to 23 where it states "Whenever a transaction arrives, the workload manager considers a number of possible routing choices for the arriving transaction (i.e., different possible servers to which that arriving transaction could be routed) and predicts estimated new values for the class performance indices for each of the possible routing decisions." As such, while the Examiner cites col. 6, lines 20-35 for support, it is believed that this passage actually teaches away from the present invention. The present invention is not a predictive process but is based on assigning a priority that is based on resource allocation representing the proportion of time the shared resource has been assigned to the respective request class. Column 8, lines 20-21 makes reference to the performance index, but does not change the fact that Ferguson et al teaches a predictive process.

In addition, the Examiner's assertion that in Ferguson et al, "priority of a class is dynamically adjusted due to the change in resource usage (i.e. moving average resource allocation)" is incorrect. Applicants submit that resource allocation is not equivalent to resource usage as being suggested and relied upon by the Examiner. More specifically, dynamic adjustment of priority based on changes in resource usage is not equivalent to dynamically assigning priority on the basis of an average resource allocation. Resource usage relates to the mere act, manner or amount of using a particular resource and is established with reference to a particular class (hence its use in estimating class performance indices). In contrast, resource

allocation pertains to the designation of the resource to a particular class, and is established with reference to the resource (see for example Figure 15). As such, while Ferguson et al. may establish priorities having regard to resource usage, this does not equate to establishing priorities in accordance with a "moving average resource allocation."

The Examiner has also failed to provide a motivation to alter the Ferguson reference to meet the claims and has also failed to point to any reasonable expectation of success. There is nothing in the record of this case indicating the desirability of the suggested modification or an expectation that it would be successful. It is impermissible to find the motivation to alter the reference in light of the Applicant's disclosure. This is an inappropriate backward-looking perspective, and is not permitted. *See* MPEP § 2142.

Turning now to the Examiner's Response to Arguments, the Examiner agreed with the following distinction set forth in the previous response: "To put it simply, Ferguson says 'if this route is going to use too many resources, I won't take it,' whereas the Applicants' invention says 'if this class is already using too many resources, I will reduce its priority to access additional resources'." The Examiner believes, however that the claimed invention fails to support such a distinction. Applicants respectfully disagree. As mentioned above, in Ferguson et al., resources are allocated based on priorities assigned in accordance with estimated values for the class performance indices of each possible routing decision for the transaction, making this a predictive process. In the present case, the phrase "average resource allocation" clearly denotes a situation where allocation has already happened, thus creating the basis for the average (i.e. it is not predictive). This is supported in the specification at page 5, lines 8-10 wherein it states "average resource allocation is the proportion of time the shared resource has been assigned to requests of this class relative to other classes." In addition, as argued above, Applicants believe

that "resource allocation" clearly distinguishes from "resource usage." As such, it is believed that the distinction is clear and that further definition within the claim is not necessary.

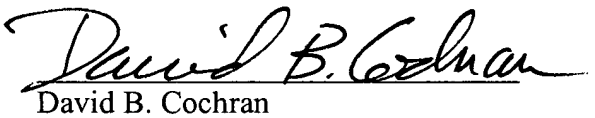
Accordingly, Applicants submit that claim 1, and all claims depending therefrom, are patentable over the prior art, and claims 2-4 and 8-9 also recite additional distinguishing subject matter.

III. Conclusion

For the foregoing reasons, Applicants respectfully submits that the rejections and objections regarding claims 1-4, and 8-9 should be withdrawn. The Examiner is therefore, respectfully requested to pass this case to issue.

Respectfully submitted,

JONES DAY



David B. Cochran
(Reg. No. 39,142)

Jones Day
North Point, 901 Lakeside Avenue
Cleveland, Ohio 44114
(216) 586-7029